

CLAIMS

What is claimed is:

1. A method of manufacturing an electroluminescent display (EL) device, the method comprising:
 - forming a first electrode unit arranged in a first predetermined pattern on a substrate;
 - simultaneously forming two or more insulating layers covering the substrate and at least portions of the first electrode unit and defining a light emitting area having a second predetermined pattern, the insulating layers having different heights and patterns;
 - forming an electroluminescent (EL) layer on the light-emitting area;
 - forming a second electrode unit in a third predetermined pattern on the light emitting area; and
 - sealing the substrate.
2. The method of claim 1, wherein the third predetermined pattern of the second electrode unit is predetermined so as to be perpendicular to the first electrode unit.
3. The method of claim 1, wherein the simultaneously forming of two or more insulating layers comprises:
 - coating a photosensitive layer having a predetermined height on the substrate and the first electrode unit;
 - exposing the photosensitive layer using a patterned single mask having two or more patterns corresponding to the two or more insulating layers; and
 - developing the exposed photosensitive layer, wherein portions of the photosensitive layer exposed through the two or more patterns of the patterned single mask are each exposed to light with a uniform intensity across said portions.
4. The method of claim 3, wherein the patterned mask comprises two or more patterning portions transmitting different amounts of light.
5. The method of claim 3, wherein the patterned mask comprises:
 - a first patterning portion shielding or transmitting a total amount of light irradiated; and
 - a second patterning portion having a plurality of auxiliary slits diffracting light transmitted through the auxiliary slits.

6. The method of claim 5, wherein the auxiliary slits of the second patterning portion comprise one or more portions having different widths, and diffraction is varied by adjusting widths of the auxiliary slits.

7. The method of claim 6, wherein the insulating layers formed using the patterned mask comprise inter-insulators defining the first electrode unit into the light-emitting area having the second predetermined pattern, insulating walls having a predetermined pattern and each having a height greater than each of the inter-insulators, shielding walls formed on the substrate along an outer periphery of the light-emitting area and preventing entry or escape of an adhesive agent when sealing the substrate, a sealing portion formed along a portion of the substrate sealed and preventing infiltration of moisture when sealing the substrate, and separators defining the second electrode unit in the third predetermined pattern.

8. The method of claim 3, wherein the photosensitive layer is formed of photoresist or photosensitive polyimide.

9. A method of manufacturing an electroluminescent display (EL) device, the method comprising:

forming a first electrode unit arranged in a first predetermined pattern on a substrate; simultaneously forming inter-insulators, covering the substrate and at least portions of the first electrode unit and defining a light emitting area having a second predetermined pattern, and insulating walls, having a third predetermined pattern formed on at least portions of the inter-insulators, wherein the inter-insulators and the insulating walls have different heights;

forming an EL layer on the light-emitting area;

forming a second electrode unit in a fourth predetermined pattern on the light emitting area; and

sealing the substrate.

10. The method of claim 9, wherein the fourth predetermined pattern of the second electrode unit is predetermined so as to be perpendicular to the first electrode unit.

11. The method of claim 9, wherein the forming of the inter-insulators and the insulating walls comprises:

coating a photosensitive layer having a predetermined height on the substrate and the first electrode unit;

exposing the photosensitive layer using a patterned single mask; and

developing the exposed photosensitive layer, wherein the patterned single mask comprises a first patterning portion and a second patterning portion respectively exposing the inter-insulators and the insulating walls.

12. The method of claim 11, wherein the first and second patterning portions transmit different amounts of light.

13. The method of claim 11, wherein the first patterning portion shields or transmits a total amount of light irradiated during the exposing, and the second patterning portion has a plurality of auxiliary slits diffracting light transmitted through the auxiliary slits.

14. The method of claim 13, wherein the photosensitive layer is of a positive type in which exposed portions thereof are removed, the first patterning portion has a first shielding portion along a pattern for forming the insulating walls, and the second patterning portion has a second shielding portion having the plurality of auxiliary slits along a pattern for forming the inter-insulators, wherein the light irradiated into the second shielding portion is diffracted through the plurality of auxiliary slits.

15. The method of claim 13, wherein the photosensitive layer is of a negative type in which non-exposed portions thereof are removed, the first patterning portion has a first shielding portion opened along a pattern for forming the insulating walls, and the second patterning portion has a second shielding portion opened along a pattern for forming the inter-insulators, wherein the opened portion of the second shielding portion has an auxiliary shielding portion having the plurality of auxiliary slits so that the light irradiated into the second shielding portion is diffracted.